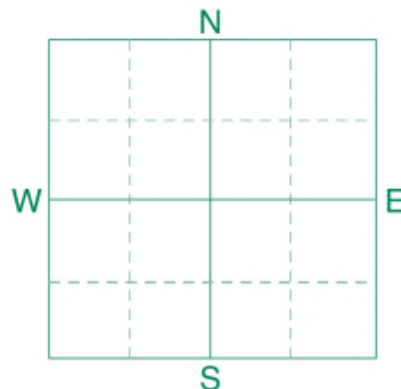




Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID Field # 1 NW 19-9-7e  
 SAMPLE ID  
 FIELD NAME **Rosewood**  
 COUNTY  
 TWP RANGE  
 SECTION QTR ACRES **145**  
 PREV. CROP **Wheat-Spring**



#### SUBMITTED FOR:

**Loewen Hill Farms**  
**Box 1 RR1**

**Steinbach, MB**

**R5G 1L9**

#### SUBMITTED BY: TE2728

**RICHARDSON PIONEER-LANDMA**  
**231 MAIN STREET**  
**BOX 70**

**LANDMARK, MB**

**ROA 0X0**

REF # **3871861** BOX # **2262**  
 LAB # **NW168712**

Date Sampled

Date Received **10/16/2022**

Date Reported **10/20/2022**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice						
		VLow	Low	Med	High	Wheat-Spring		Canola-bu		Soybeans						
Nitrate	0-6" 6-24"	lb/acre lb/acre					YIELD GOAL	YIELD GOAL	YIELD GOAL							
	0-24"	lb/acre					60 BU	45 BU	40 BU							
							SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES							
							Band	Band/Maint.	Broadcast/Maint.							
							LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION				
Olsen	27 ppm					N	10	N	9	N	***					
Phosphorus						P <sub>2</sub> O <sub>5</sub>	15	P <sub>2</sub> O <sub>5</sub>	41	P <sub>2</sub> O <sub>5</sub>	30					
Potassium	451 ppm						Band (Starter)*		Band *		Broadcast					
Chloride	0-24" 56 lb/acre					K <sub>2</sub> O	10	K <sub>2</sub> O	0	K <sub>2</sub> O	0					
	0-6" 6-24" 76 lb/acre 360 +lb/acre					Cl	0	Cl	Not Available	Cl	0					
Sulfur						S	0	S	10	S	0					
Boron	2.7 ppm					B	0	B	0	B	0					
Zinc	2.61 ppm					Zn	0	Zn	0	Zn	0					
Iron	38.4 ppm					Fe	0	Fe	0	Fe	0					
Manganese	2.3 ppm					Mn	0	Mn	0	Mn	0					
Copper	2.39 ppm					Cu	0	Cu	0	Cu	0					
Magnesium	3608 ppm					Mg	0	Mg	0	Mg	0					
Calcium	5068 ppm					Lime		Lime		Lime						
Sodium	199 ppm															
Org.Matter	7.5 %															
Carbonate(CCE)	3.2 %															
Sol. Salts	0-6" 6-24" 1.12 mmho/cm 2.49 mmho/cm					Soil pH	7.6 8.1	Buffer pH		Cation Exchange Capacity	57.4 meq	% Base Saturation (Typical Range)				
												% Ca	% Mg	% K	% Na	% H
												(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
												44.1	52.4	2.0	1.5	0.0

General Comments: Fine-textured (CEC: 31+ meq)

Crop 1: \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 41 K2O = 20 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

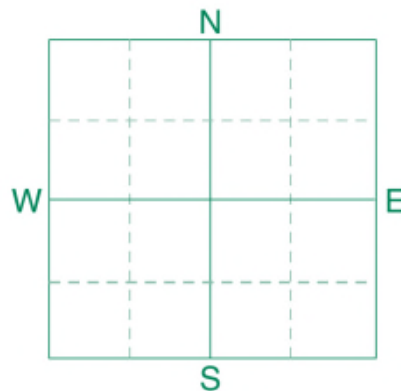
Crop 3: May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is very high, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Broadcast/Maintenance guideline will build P & K test levels to the high range over several years and then maintain them.



Soil Analysis by Agvise Laboratories  
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 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID Field # 2 SW 25-7-6e  
 SAMPLE ID  
 FIELD NAME Jake  
 COUNTY  
 TWP RANGE  
 SECTION QTR ACRES 188.6  
 PREV. CROP Wheat-Spring



SUBMITTED FOR:  
**Loewen Hill Farms**  
**Box 1 RR1**  
  
**Steinbach, MB R5G 1L9**

SUBMITTED BY: **TE2728**  
**RICHARDSON PIONEER-LANDMA**  
**231 MAIN STREET**  
**BOX 70**  
**LANDMARK, MB ROA 0X0**

REF # **3871848** BOX # **2130**  
 LAB # **NW168710**

Date Sampled \_\_\_\_\_ Date Received **10/16/2022** Date Reported **10/20/2022**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice						
		VLow	Low	Med	High	Wheat-Spring		Canola-bu		Soybeans						
Nitrate	0-6" 6-24"	*****				YIELD GOAL		YIELD GOAL		YIELD GOAL						
		*****				60 BU		45 BU		40 BU						
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES						
		*****				Band		Band/Maint.		Broadcast/Maint.						
		*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION					
Olsen	51 ppm	*****				N	130	N	126	N	***					
Phosphorus		*****				P <sub>2</sub> O <sub>5</sub>	15	Band (Starter)*	P <sub>2</sub> O <sub>5</sub>	10	Band (Starter)*					
Potassium	467 ppm	*****				K <sub>2</sub> O	10	Band (Starter)*	K <sub>2</sub> O	0						
Chloride	0-24" 496 lb/acre	*****				Cl	0	Not Available	Cl	0						
Sulfur	0-6" 6-24" 120 +lb/acre 360 +lb/acre	*****				S	0		S	10	Band					
Boron	1.6 ppm	*****				B	0		B	0						
Zinc	5.46 ppm	*****				Zn	0		Zn	0						
Iron	26.4 ppm	*****				Fe	0		Fe	0						
Manganese	1.8 ppm	*****				Mn	0		Mn	0						
Copper	1.69 ppm	*****				Cu	0		Cu	0						
Magnesium	2071 ppm	*****				Mg	0		Mg	0						
Calcium	4577 ppm	*****				Lime			Lime							
Sodium	151 ppm	*****				Soil pH		Buffer pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Org.Matter	5.1 %	*****				0-6" 7.8		6-24" 8.3		42.0 meq		% Ca	% Mg	% K	% Na	% H
Carbonate(CCE)	1.3 %	*****										(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
Sol. Salts	0-6" 6-24" 0.8 mmho/cm 1.63 mmho/cm	*****										54.5	41.1	2.9	1.6	0.0

**General Comments:** Soil texture is not estimated on high pH soils.  
**Crop 1:** \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.  
**Crop 2:** Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 41 K2O = 20 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.  
**Crop 3:** May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is moderate, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Broadcast/Maintenance guideline will build P & K test levels to the high range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

# AGRA-GOLD

Soil Analysis by Agvise Laboratories  
(http://www.agvise.com)  
Northwood: (701) 587-6010  
Benson: (320) 843-4109

## SOIL TEST REPORT

FIELD ID Field # 3  
SAMPLE ID  
FIELD NAME **Roy Loewen**  
COUNTY  
TWP **NW 24-7-6e** RANGE  
(W)  
SECTION QTR ACRES **80**  
PREV. CROP **Wheat-Spring**

W E

SUBMITTED FOR:  
**Eagle Rock Farms**

SUBMITTED BY: **EL1911**  
**AGRA-GOLD CONSULTING LTD**  
**CLIFF LOEWEN**  
**33020 RD 40 N**  
**BLUMENORT, MB** **ROA 0C1**

REF # **2957735** BOX # **575**  
LAB # **NW56433**

Date Sampled **08/21/2020**

Date Received **08/22/2020**

Date Reported **8/24/2020**

Nitrate	0-6"	21 lb/acre				Canola-bu								
	6-24"	51 lb/acre	*****	*****	*****	YIELD GOAL		YIELD GOAL		YIELD GOAL				
						44 BU								
	0-24"	72 lb/acre				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band								
					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION				
Olsen	33 ppm	*****	*****	*****	N	82	N		N					
Phosphorus					P <sub>2</sub> O <sub>5</sub>	10	Band (Starter)*	P <sub>2</sub> O <sub>5</sub>		P <sub>2</sub> O <sub>5</sub>				
Potassium	248 ppm	*****	*****	*****	K <sub>2</sub> O	0		K <sub>2</sub> O		K <sub>2</sub> O				
Chloride					Cl			Cl		Cl				
Sulfur	0-6"	120 +lb/acre	*****	*****	S	10	Band	S		S				
Boron	6-24"	360 +lb/acre	*****	*****	B			B		B				
Zinc		3.83 ppm	*****	*****	Zn	0		Zn		Zn				
Iron					Fe			Fe		Fe				
Manganese					Mn			Mn		Mn				
Copper					Cu			Cu		Cu				
Magnesium		1503 ppm	*****	*****	Mg	0		Mg		Mg				
Calcium		5463 ppm	*****	*****	Lime			Lime		Lime				
Sodium		133 ppm	*****	*****										
Org. Matter		5.7 %	*****	*****										
Carbonate(CCE)														
Sol. Salts	0-6"	1.16 mmho/cm	*****	*****	Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)						
	6-24"	1.54 mmho/cm	*****	*****	0-6" 8.0		41.1 meq	% Ca	% Mg	% K	% Na	% H		
					6-24" 8.4			(65-75) 66.5	(15-20) 30.5	(1-7) 1.5	(0-5) 1.4	(0-5) 0.0		

General Comments: Soil texture is not estimated on high pH soils.

Crop 1: \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 40 K2O = 20  
AGVISE Band guideline will build P & K test levels to the medium range over several years.

# AGRA-GOLD

Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

## SOIL TEST REPORT

FIELD ID Field # 4 SE 11-7-6e  
 SAMPLE ID  
 FIELD NAME **Roy Loewen**  
 COUNTY  
 TWP **SE 11-7-6e** RANGE  
 SECTION QTR ACRES **175**  
 PREV. CROP **Hemp Seed**

W . E

N

S

SUBMITTED FOR:  
**Eagle Rock Farms**

SUBMITTED BY: **EL1911**  
**AGRA-GOLD CONSULTING LTD**  
**CLIFF LOEWEN**  
**33020 RD 40 N**  
**BLUMENORT, MB ROA 0C1**

REF # **3044537** BOX # **11025**  
 LAB # **NW110275**

Date Sampled **09/25/2020**

Date Received **09/28/2020**

Date Reported **9/28/2020**

Nitrate	0-6" 6-24"	12 lb/acre 6 lb/acre	*****				Canola-bu							
	0-24"	18 lb/acre					YIELD GOAL		YIELD GOAL		YIELD GOAL			
							44 BU							
							SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
							Band							
Phosphorus	Olsen	30 ppm	*****	*****	*****	*****	N	136		N				
Potassium		290 ppm	*****	*****	*****	*****	P <sub>2</sub> O <sub>5</sub>	10	Band (Starter)*	P <sub>2</sub> O <sub>5</sub>				
Chloride							K <sub>2</sub> O	0		K <sub>2</sub> O				
Sulfur	0-6" 6-24"	36 lb/acre 216 lb/acre	*****	*****	*****	*****	Cl			Cl				
Boron							S	10	Band	S				
Zinc		2.49 ppm	*****	*****	*****	*****	B			B				
Iron							Zn	0		Zn				
Manganese							Fe			Fe				
Copper							Mn			Mn				
Magnesium		1238 ppm	*****	*****	*****	*****	Cu			Cu				
Calcium		4080 ppm	*****	*****	*****	*****	Mg	0		Mg				
Sodium		43 ppm	*****				Lime			Lime				
Org.Matter		5.8 %	*****	*****	*****	*****								
Carbonate(CCE)														
Sol. Salts	0-6" 6-24"	0.42 mmho/cm 0.63 mmho/cm	*****	*****	*****	*****	Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
							0-6" 7.8 6-24" 8.3		31.6 meq	% Ca	% Mg	% K	% Na	% H
										(65-75) 64.5	(15-20) 32.6	(1-7) 2.3	(0-5) 0.6	(0-5) 0.0

General Comments: Soil texture is not estimated on high pH soils.

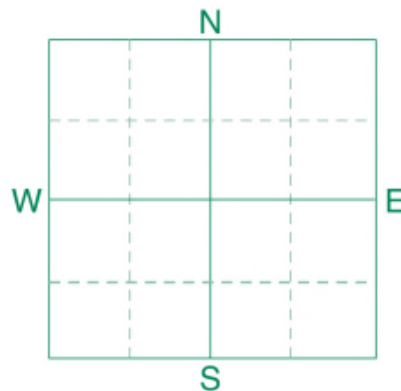
Crop 1: \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 40 K2O = 20  
 AGVISE Band guideline will build P & K test levels to the medium range over several years.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID Field # 5 NW 1-10-4e  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP RANGE  
 SECTION QTR ACRES **150**  
 PREV. CROP **Wheat-Spring**



**SUBMITTED FOR:**  
**Loewen Hill Farms**  
**Box 1 RR1**  
**Steinbach, MB R5G 1L9**

**SUBMITTED BY: TE2728**  
**RICHARDSON PIONEER-LANDMA**  
**231 MAIN STREET**  
**BOX 70**  
**LANDMARK, MB ROA 0X0**

REF # **3871860** BOX # **10637**  
 LAB # **NW183173**

Date Sampled

Date Received **10/19/2022**

Date Reported **10/24/2022**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring			Canola-bu			Soybeans				
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL				
		*****				60 BU			45 BU			40 BU				
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
		*****				Band			Band/Maint.			Broadcast/Maint.				
		*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
Phosphorus	Olsen 8 ppm	*****				N	124		N	120		N	***			
Potassium	533 ppm	*****				P <sub>2</sub> O <sub>5</sub>	35	Band *	P <sub>2</sub> O <sub>5</sub>	41	Band *	P <sub>2</sub> O <sub>5</sub>	54	Broadcast		
Chloride	0-24" 16 lb/acre	*****				K <sub>2</sub> O	10	Band (Starter)*	K <sub>2</sub> O	0		K <sub>2</sub> O	0			
Sulfur	0-6" 6-24" 46 lb/acre 96 lb/acre	*****				Cl	24	Broadcast	Cl		Not Available	Cl	0			
Boron	1.5 ppm	*****				S	0		S	10	Band	S	0			
Zinc	0.82 ppm	*****				B	0		B	0		B	0			
Iron	24.6 ppm	*****				Zn	0		Zn	1	Band	Zn	0			
Manganese	2.2 ppm	*****				Fe	0		Fe	0		Fe	0			
Copper	1.73 ppm	*****				Mn	0		Mn	0		Mn	0			
Magnesium	2104 ppm	*****				Cu	0		Cu	0		Cu	0			
Calcium	5146 ppm	*****				Mg	0		Mg	0		Mg	0			
Sodium	32 ppm	*****				Lime			Lime			Lime				
Org.Matter	7.1 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Carbonate(CCE)	1.5 %	*****				Buffer pH										
Sol. Salts	0-6" 6-24" 0.44 mmho/cm 0.6 mmho/cm	*****				0-6" 8.0			44.8 meq		% Ca (65-75)		% Mg (15-20)	% K (1-7)	% Na (0-5)	% H (0-5)
		*****				6-24" 8.4					57.5		39.2	3.1	0.3	0.0

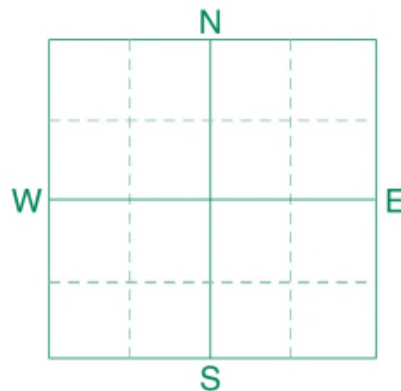
**General Comments:** Soil texture is not estimated on high pH soils.  
**Crop 1:** 52 lb potassium chloride (0-0-60-50Cl) = 24 lb chloride. \*CAUTION: Seed-placed fertilizer can cause injury. \* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.  
**Crop 2:** Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury. \* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 41 K2O = 20 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.  
**Crop 3:** May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is low, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Broadcast/Maintenance guideline will build P & K test levels to the high range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

### SOIL TEST REPORT

FIELD ID Field # 6. SE 29-10-4e N  
 SAMPLE ID  
 FIELD NAME  
 COUNTY  
 TWP RANGE  
 SECTION QTR ACRES **80**  
 PREV. CROP **Canola-bu**



**SUBMITTED FOR:**  
**Loewen Hill Farms**  
**Box 1 RR1**  
**Steinbach, MB R5G 1L9**

**SUBMITTED BY: TE2728**  
**RICHARDSON PIONEER-LANDMA**  
**231 MAIN STREET**  
**BOX 70**  
**LANDMARK, MB ROA 0X0**

REF # **3962426** BOX # **1640**  
 LAB # **NW249107**

Date Sampled \_\_\_\_\_ Date Received **11/14/2022** Date Reported **11/16/2022**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring		Canola-bu		Soybeans				
Nitrate	0-6" 6-24"	*****				YIELD GOAL		YIELD GOAL		YIELD GOAL				
		*****				60 BU		45 BU		40 BU				
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
	23 lb/acre 24 lb/acre	*****				Band		Band/Maint.		Broadcast/Maint.				
	47 lb/acre	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
		*****				N	115	N	111	N	***			
Phosphorus	Olsen 4 ppm	*****				P <sub>2</sub> O <sub>5</sub>	43 Band *	P <sub>2</sub> O <sub>5</sub>	47 Band *	P <sub>2</sub> O <sub>5</sub>	67 Broadcast			
Potassium	407 ppm	*****				K <sub>2</sub> O	10 Band (Starter)*	K <sub>2</sub> O	0	K <sub>2</sub> O	0			
Chloride	0-24"	*****				Cl	8	Cl	Not Available	Cl	0			
	0-6" 6-24"	*****				S	0	S	17 Band	S	15 Broadcast			
Sulfur	14 lb/acre 66 lb/acre	*****				B	0	B	0	B	0			
Boron	1.5 ppm	*****				Zn	0	Zn	2 Band	Zn	1 Broadcast			
Zinc	0.60 ppm	*****				Fe	0	Fe	0	Fe	0			
Iron	22.0 ppm	*****				Mn	0	Mn	0	Mn	0			
Manganese	1.7 ppm	*****				Cu	0	Cu	0	Cu	0			
Copper	1.99 ppm	*****				Mg	0	Mg	0	Mg	0			
Magnesium	1992 ppm	*****				Lime		Lime		Lime				
Calcium	4596 ppm	*****				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Sodium	35 ppm	*****				Buffer pH				% Ca	% Mg	% K	% Na	% H
Org.Matter	5.1 %	*****				0-6" 8.0		40.8 meq		(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
Carbonate(CCE)	4.0 %	*****				6-24" 8.4				56.4	40.7	2.6	0.4	0.0
Sol. Salts	0-6" 6-24"	*****												
	0.8 mmho/cm 0.74 mmho/cm	*****												

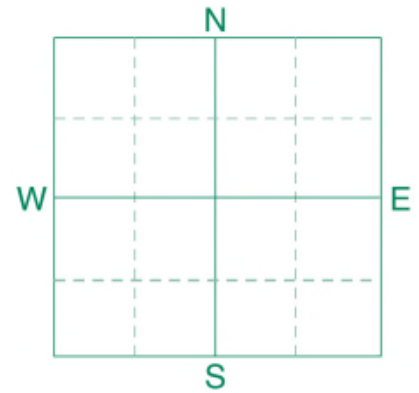
**General Comments:** Soil texture is not estimated on high pH soils.  
**Crop 1:** 17 lb potassium chloride (0-0-60-50Cl) = 8 lb chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.  
**Crop 2:** Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 41 K2O = 20 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.  
**Crop 3:** May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is high, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Broadcast/Maintenance guideline will build P & K test levels to the high range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

## SOIL TEST REPORT

FIELD ID Field # 7 Sec. 28-10-4e N  
 SAMPLE ID (parts of NW, SW, SE, NE)  
 FIELD NAME  
 COUNTY  
 TWP RANGE  
 SECTION QTR ACRES **240**  
 PREV. CROP **Wheat-Spring**



**SUBMITTED FOR:**  
**Loewen Hill Farms**  
**Box 1 RR1**  
**Steinbach, MB R5G 1L9**

**SUBMITTED BY: TE2728**  
**RICHARDSON PIONEER-LANDMA**  
**231 MAIN STREET**  
**BOX 70**  
**LANDMARK, MB ROA 0X0**

REF # **3962425** BOX # **1695**  
 LAB # **NW249106**

Date Sampled

Date Received **11/14/2022**

Date Reported **11/16/2022**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring		Canola-bu		Soybeans				
Nitrate	0-6" 6-24"	*****				YIELD GOAL		YIELD GOAL		YIELD GOAL				
						60 BU		45 BU		40 BU				
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band		Band/Maint.		Broadcast/Maint.				
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus	Olsen 8 ppm	*****				N 131		N 127		N ***				
Potassium	422 ppm	*****				P <sub>2</sub> O <sub>5</sub> 35	Band *	P <sub>2</sub> O <sub>5</sub> 41	Band *	P <sub>2</sub> O <sub>5</sub> 54	Broadcast			
Chloride	0-24" 24 lb/acre	*****				K <sub>2</sub> O 10	Band (Starter)*	K <sub>2</sub> O 0		K <sub>2</sub> O 0				
Sulfur	0-6" 6-24" 22 lb/acre 72 lb/acre	*****				Cl 16	Broadcast	Cl	Not Available	Cl 0				
Boron	1.5 ppm	*****				S 0		S 15	Band	S 10	Broadcast (Trial)			
Zinc	0.95 ppm	*****				B 0		B 0		B 0				
Iron	23.5 ppm	*****				Zn 0		Zn 1	Band	Zn 0				
Manganese	1.6 ppm	*****				Fe 0		Fe 0		Fe 0				
Copper	1.88 ppm	*****				Mn 0		Mn 0		Mn 0				
Magnesium	2461 ppm	*****				Cu 0		Cu 0		Cu 0				
Calcium	5411 ppm	*****				Mg 0		Mg 0		Mg 0				
Sodium	60 ppm	*****				Lime		Lime		Lime				
Org.Matter	5.4 %	*****				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)	5.6 %	*****				Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24" 0.75 mmho/cm 0.67 mmho/cm	*****				0-6" 8.1		48.9 meq		(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
						6-24" 8.5				55.3	41.9	2.2	0.5	0.0

**General Comments:** Soil texture is not estimated on high pH soils.  
**Crop 1:** 35 lb potassium chloride (0-0-60-50Cl) = 16 lb chloride. \*CAUTION: Seed-placed fertilizer can cause injury. \* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P<sub>2</sub>O<sub>5</sub> = 38 K<sub>2</sub>O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.  
**Crop 2:** Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury. \* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P<sub>2</sub>O<sub>5</sub> = 41 K<sub>2</sub>O = 20 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.  
**Crop 3:** May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is very high, based on soil carbonate and salinity. Crop nutrient removal: P<sub>2</sub>O<sub>5</sub> = 30 K<sub>2</sub>O = 47 AGVISE Broadcast/Maintenance guideline will build P & K test levels to the high range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.